

YIN LIN

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EDUCATION

University of Michigan, Ann Arbor

Ph.D. student in Computer Science and Engineering

Advisor: [Prof. H. V. Jagadish](#)

Ann Arbor, MI

Sept. 2019 – present

Shanghai Jiao Tong University

B.S. in Computer Science

Shanghai, China

Sept. 2015 – June 2019

RESEARCH INTEREST

DB4AI; Responsible data management and data preparation.

PUBLICATIONS

Conferences

- *On Detecting Cherry-picked Generalizations*
[Yin Lin](#), Brit Youngman, Yuval Moskovitch, H. V. Jagadish, Tova Milo
PVLDB - Proceedings of the VLDB Endowment, 15(1): 59-71, 2022.
- *Identifying Insufficient Data Coverage in Databases with Multiple Relations*
[Yin Lin](#), Yifan Guan, Abolfazl Asudeh, H. V. Jagadish
PVLDB - Proceedings of the VLDB Endowment, 13(11): 2229-2242, 2020.
- *R²-Tree: An Efficient Indexing Scheme for Data Center Networks*
[Yin Lin](#), Xinyi Chen, Xiaofeng Gao, Bin Yao, Guihai Chen
DEXA - International Conference on Database and Expert Systems Applications, 2018.

Workshops

- *OREO: Detection of Cherry-picked Generalizations*
[Yin Lin](#), Brit Youngman, Yuval Moskovitch, H. V. Jagadish, Tova Milo
PVLDB - Proceedings of the VLDB Endowment, 15(12): 3570 - 3573, 2022.
- *On Structural vs. Proximity-based Temporal Node Embeddings*
Puja Trivedi*, Alican Büyükçakır*, [Yin Lin](#), Yinlong Qian, Di Jin and Danai Koutra
KDD MLG - International Workshop on Mining and Learning with Graphs, 2020.
- *MithraDetective: A System for Cherry-picked Trendlines Detection*
Yoko Nagafuchi, [Yin Lin](#), Kaushal Mamgain, Abolfazl Asudeh, H. V. Jagadish, You (Will) Wu, Cong Yu
CoRR, 2020, arXiv/2010.08807.

Journal Articles

- *A Survey on Techniques for Identifying and Resolving Representation Bias in Data*
Nima Shahbazi, [Yin Lin](#), Abolfazl Asudeh, HV Jagadish
CoRR, 2022, arXiv/2203.11852.

RESEARCH EXPERIENCES

On Detecting Cherry-picked Generalizations

June. 2020 – Apr. 2021

University of Michigan – Advisor: [Prof. H. V. Jagadish](#), Collaborator: [Prof. Tova Milo](#)

- *Goal: To detect misleading statements given by cherry-picked generalization levels.*
- Presented a scoring framework to indicate the appropriateness of the generalizations based on subgroup aggregate comparisons. Designed efficient algorithms for score computation.

- Formulated practical explanation tasks to disclose significant counterexamples and provide better alternatives to the statement.

Identifying Insufficient Data Coverage in Databases with Multiple Relations Sept. 2019 – July 2020
 University of Michigan – Advisor: [Prof. H. V. Jagadish](#), Collaborator: [Prof. Abolfazl Asudeh](#)

- *Goal: To provide an efficient approach for database coverage analysis on a set of attributes across multiple tables.*
- Designed an index scheme to avoid explicit table joins, achieve efficient memory usage, and support predicate combinations for aggregate COUNT queries at a high level of parallelism.
- Proposed a priority-based search heuristics to traverse and prune the lattice space of all possible value combinations.
- Presented approximate query processing methods to further reduce the computation time.

Scalable R-Tree based Indexing for Server-Centric Cloud Storage Systems Dec. 2016 – Feb. 2018
 Shanghai Jiao Tong University – Advisor: [Prof. Xiaofeng Gao](#)

- *Goal: To propose a scalable R-Tree based indexing scheme for high dimensional data in data centers.*
- Utilized R-Tree to support point, range query and used Bloom filter to reduce the false positives.
- Formulated a general definition for server-centric data center topologies and employed the two-layer indexing framework to maintain a global index layer above the structured overlay.
- Validated the indexing scheme in up to 64 instances and three different data center topologies.

INTERNSHIPS

Microsoft Research, Redmond,
Research Intern in Data Management, Exploration and Mining (DMX) (Mentor: [Cong Yan](#)) May 2022 – Aug. 2022

Huawei Technologies Co., Ltd.,
Research Intern in GaussDB Group (Mentor: Bo Gao) Apr. 2019 – July 2019

University of Waterloo,
Research Intern in Software Architecture Group (Advisor: [Prof. Meiyappan Nagappan](#)) July 2018 – Oct. 2018

TEACHING EXPERIENCES

[CS499](#), Mathematical Foundations of Computer Science, SJTU Spring 2018
Teaching Assistant. Instructor: [Prof. Dominik Scheder](#)

STUDENT MENTORING

Yoko Nagafuchi, Senior, University of Michigan

HONORS & AWARDS

Rackham Dean's and Named PhD fellowship	Full first-year PhD fellowship from the University of Michigan	2019-2020
Outstanding Undergraduate in Shanghai Jiao Tong University		June 2019
Academic Scholarship	Awarded to top 10% undergraduates for academic performance at SJTU	2016 – 2018
Meritorious Winner	Mathematical Contest in Modeling twice, top 8% worldwide	2017, 2018
National Scholarship for Studying Abroad, China Scholarship Council	Awarded to 200 undergraduates in China	2018
SCSK Scholarship	Awarded to 7 computer science undergraduates at SJTU for the academic performance	2018
Yitu Scholarship	Awarded to 3 outstanding computer science undergraduates at SJTU for their research	2017
Huawei Scholarship	Awarded to 7 computer science undergraduates at SJTU for the academic performance	2017
Chun Tsung Scholar	Awarded to 50 undergraduates at SJTU, funded by Nobel Prize owner Tsung-Dao Lee	2016